Reducing antibiotic overuse in rural China

We commend Xiaolin Wei and colleagues[1] for developing an antibiotic stewardship intervention at township hospitals in rural China, and for testing its impact on antibiotic prescribing for paediatric outpatients on a large scale through a cluster-randomised trial. Their findings should strengthen the impetus for the much needed roll-out of antibiotic stewardship interventions in primary health care in Asian countries.

There is mounting evidence that clinician-targeted interventions can reduce antibiotic prescriptions in outpatient settings,[2] but much of the previous research has been done in high-income countries, and this study from China provides additional weight to support such an approach in Asia. However, unlike high-income countries, many Asian countries have poorly enforced systems for regulating access to antibiotics, and antibiotics are available from multiple sources, often without a prescription. In a trial of clinician-targeted point-of-care diagnostic tests to reduce antibiotic prescribing for mild respiratory infections in Vietnam,[3] patients were interviewed at screening and follow-up, and it was found that 10% of patients had already consumed antibiotics before attending a primary health-care centre and 30% went on to obtain them from another source when they were not prescribed antibiotics. Wei and colleagues do not describe the use of antibiotics from alternative sources, possibly because of the scale of their study. This would have been useful information to provide a comprehensive picture of the intervention's impact on antibiotic use.

Furthermore, reductions in antibiotic use in high-income countries have been achieved not only through reduced prescription rates, but also through reduced consultation rates for mild respiratory infections.[4] In light of this evidence and the widespread access to antibiotics outside the formal health-care system, tackling both supply and demand will be essential to achieve sustainable reductions in population-level antibiotic use. There is an absence of interventions to reduce unnecessary antibiotic use through targeting awareness and communication in Asian settings.[5] Strategic, multi-pronged communication campaigns involving a mixture of media channels, as well as innovative community-based strategies to encourage behaviour change, are needed to change public perception about the role of antibiotics for treating upper respiratory tract infections.

As Wei and colleagues suggest, longer-term follow-up is also needed to see whether reductions are sustained. In Do and colleagues' study in Vietnam,[3] despite a similarly sized reduction in antibiotic prescribing during the study, qualitative research findings (unpublished) showed that most health providers returned to previous prescribing practice after the study had finished. In addition to patient demands and fear of complications, pressures for clinics to dispense stocks so they can receive replenishments and incentives from pharmaceutical companies for health-care workers to dispense antibiotics, mean that simply providing guidelines and improving knowledge might not be enough to sustain behaviour change.

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